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10/529,394	03/28/2005	Pilgrim Giles William Beart	P08594US00/RFH	6724
881 7590 03/28/2007 STITES & HARBISON PLLC 1199 NORTH FAIRFAX STREET SUITE 900 ALEXANDRIA, VA 22314			EXAMINER MURALIDAR, RICHARD V	
			ART UNIT 2838	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/28/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/529,394

Applicant(s)

BEART ET AL.

Examiner

Richard V. Muralidar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17,18,21,23-38,40-44,61,64 and 72-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17,18,21,23-38,40-44,61,64, and 72-96 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 17, 18, 21, 24-26, 30-34, 41-44, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al. [U.S. 6027225].

With respect to claims 17 and 32 [amended], Martin discloses a primary unit [Fig. 4, the charging cradle 50 containing the primary coil 45]; and a system [the system is the combined battery powered light 10 with charging cradle 50], for use in a power transfer system [Fig. 2, 10 is placed into charging cradle 50 to form a power transfer system] that has a portable electrical or electronic device [Fig. 3, the portable device is the battery powered light 10, which comprises rechargeable batteries 34, secondary coil 36 and light source 39; col. 4 lines 4-12]; the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling [col. 4 lines 49-67; the battery powered light 10 is separable from charging cradle 50; alternatively, rechargeable battery 34 is removable from angled surface 19 (and therefore primary coil 45) by undoing Velcro 28- col. 5 lines 9-13] when the device is placed on or in proximity to the primary unit, the primary unit comprising: a power transfer surface [Fig. 4, receiving portion 57]; and an inductive power supply [Fig. 4, secondary coil 36 is coupled with primary coil 45, which is powered by transformer 44]

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which supplies power inductively; the primary unit being arranged such that the device can be placed in any position along a line extending in one translational dimension across the power transfer surface [Figs. 3 and 4, if a line is drawn vertically dissecting the battery powered light 10 and charging cradle 50 at the midpoint, it can be seen from the concave shape of cradle 57 that light transmission housing 12 of battery powered light 10 can be rotated in any 360 degree direction and still receive inductive charging; i.e. the placement in regards to degree of rotation of battery powered light 10 does not negate charging. Note the central placement of secondary coil 36 in Fig. 3] to receive power inductively from the inductive power supply; and further comprising at least one attaching element which is independent of the inductive power supply and [Fig. 4, the walls 53 holds the light transmission housing 12 of battery powered light 10 securely in charging cradle 50; loop 13 also tethers housing 12 to charging cradle 50- col. 4 lines 5-7] which temporarily releasably attaches the device to the primary unit in any said position along said line such that the device is held on or in proximity to the power transfer surface, the at least one attaching element providing a non-gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface [the battery powered light 10 is held in place by charging cradle 50 due to frictional force between the sidewalls. Additionally, loop 13 tethers the battery powered light 10 into charging cradle 50- Fig. 4, col. 5 lines 5-7], when the device is attached to the primary unit in any said position along said line.

With respect to claim 18, Martin discloses a primary unit according to claim 17, wherein said at least one attaching element is arranged on the power transfer surface [both the sidewalls 12, 53, and loop 13 are on the power transfer surface].

With respect to claim 21, Martin discloses that said at least one attaching element comprises one or more of the following: hook-and-eye fasteners [loop 13 engaged in recess 59- col. 5 lines 46-49], suckers, reusable self-adhesive glue, a high stiction/friction surface, a permanent magnet or array of permanent magnets, an electromagnet or array of electromagnets, and electrostatically-charged terminals.

With respect to claim 24, Martin discloses that at least one said attaching element has one or more aesthetic or visual qualities to indicate to a user that the primary unit is available to supply power inductively [the concave housing 12 and the matching concave surface 54 is a visual indication that the two were meant to be mated together. The lack of charging contacts inside charging cradle 50 is an indication that charging occurs inductively].

With respect to claim 25, Martin discloses a primary unit according to claim 24, wherein said qualities include one or more of: a colour, texture [the concavity can be considered a texture since it has a distinctive feel], pattern, logo design, and a material.

With respect to claim 26, Martin discloses that at least one of said qualities changes according to an operating state of the primary unit and/or the device [the open concavity will vanish from sight when the battery powered light 50 is inserted into the charging cradle 50 for charging, and reappear when it is removed].

With respect to claim 30, Martin discloses that the power transfer surface is flat [Fig. 4, the vertical portion of transfer surface 57 is flat].

With respect to claim 31, Martin discloses that the power transfer surface extends vertically when the primary unit is in use [Fig. 4, the flat portion of transfer surface 57 extends vertically upwards when in use].

With respect to claim 33, Martin discloses that at least one said attaching element is arranged on a surface of the device [Fig. 4, loop 13 is on the surface of the device] which surface is on or in proximity to the power transfer surface when the device is placed to receive power inductively from the inductive power supply.

With respect to claim 34, Martin discloses that said at least one attaching element comprise a first attaching element arranged on the device and a second attaching element arranged on the power transfer surface, the first element corresponding to the second element such that the device is attachable to the power transfer surface, but the device is not attachable to another such device, and the power transfer surface is not attachable to another such power transfer surface [loop 13 is tethered to recess 59, which is a male-female type fit, col. 5 lines 46-49].

With respect to claim 41, Martin discloses that the primary unit is carried in or by a movable conveyance [battery powered light 10 is portable and can be carried in a vehicle].

With respect to claims 42 and 61 [amended], Martin discloses a portable electrical or electronic device [Fig. 3, the portable device is the battery powered light 10, which comprises rechargeable batteries 34, secondary coil 36 and light source 39; col.

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4 lines 4-12]; adapted to receive power from a primary unit [Fig. 4, the charging cradle 50 containing the primary coil 45] that has a power transfer surface [Fig. 4, receiving portion 57] and an inductive power supply [Fig. 4, secondary coil 36 is coupled with primary coil 45, which is powered by transformer 44] which supplies power inductively, said device being separable from the primary unit and having an inductive power receiver [Figs. 1 and 3, secondary coil 36 of battery powered light 10] adapted to receive power from the inductive power supply by inductive coupling when the device is placed on or in proximity to the power transfer surface [primary coil 45 inductively couples secondary coil 36- col. 4 lines 60-67], the device being arranged such that the device can be placed in any position along a line extending in one translational dimension across the power transfer surface [Figs. 3 and 4, if a line is drawn vertically dissecting the battery powered light 10 and charging cradle 50 at the midpoint, it can be seen from the concave shape of cradle 57 that light transmission housing 12 of battery powered light 10 can be rotated in any 360 degree direction and still receive inductive charging; i.e. the placement in regards to degree of rotation of battery powered light 10 does not negate charging. Note the central placement of secondary coil 36 in Fig. 3] to receive power inductively from the inductive power supply, and wherein the device comprises at least one attaching element which is independent of said inductive power receiver; and connecting means independent of the supplying means [Fig. 4, the walls 53 holds the light transmission housing 12 of battery powered light 10 securely in charging cradle 50; loop 13 also tethers housing 12 to charging cradle 50 via recess 59- col. 4 lines 5-7; col. 5 lines 46-51], which temporarily releasably attaches the device to

the primary unit in any said position along said line such that the device is held on or in proximity to the power transfer surface, said attaching element(s) providing a non-gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface [the battery powered light 10 is held in place by charging cradle 50 due to frictional force between the sidewalls. Additionally, loop 13 tethers the battery powered light 10 into charging cradle 50- Fig. 4, col. 5 lines 5-7], when the device is attached to the primary unit in any said position along said line.

With respect to claim 43, Martin discloses that at least one said attaching element has one or more aesthetic or visual qualities to indicate to a user that the device is capable of receiving power inductively [Fig. 4, the male concavity of battery powered light 10 is a visual indication that it can receive power inductively from the corresponding female concavity of charging cradle 50].

With respect to claim 44, Martin discloses that there are one or more classes of portable electrical or electronic device, and at least one said attaching element has one or more aesthetic or visual qualities to inform a user that the device belongs to a particular said class of device [Fig. 4, the female concavity of charging cradle 50 is a visual indication that it is capable of charging battery powered light 10 with corresponding male concavity].

Claim 64 is rejected under 35 U.S.C. 102(b) as being anticipated by Koreis [U.S. 6489745].

With respect to claim 64 [amended], Koreis discloses an item of furniture [Figs. 1, 2 and 3, aircraft seat- col. 1 lines 63-67 and col. 2 lines 1-2, lines 62-65] having a primary unit [inductive coil 12 of charging unit 14- col. 2 lines 49-51] embedded within it [col. 1 line 65], the primary unit comprising an inductive power supply adapted to transfer power inductively to a portable electrical or electronic device [col. 2 lines 47-59], the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling [the laptop with receptor 16 can be removed from the lift tray's embedded inductive coil 12, col. 2 lines 13-19], wherein: the item of furniture has a surface on or in proximity to which the device is placed to receive power inductively from the primary unit and the inductive power supply is arranged so that no part thereof is visible when viewing said surface [the power supply is hidden inside the seat back tray- col. 1 lines 63-67 and col. 2 lines 1-2]; and the item of furniture possesses at least one visual or tactile quality indicating the presence of the primary unit in the item of furniture [col. 3 lines 60-67, the presence of the power switch for inductive charger 14 serves as such a visual indication].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 23, 27-29, 32, 35-38, 40, 42, 61, 72-81, 84-93, and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koreis [U.S. 6489745] in view of Martin et al. [U.S. 6027225].

With respect to independent claims 17, 32, 42, 61, 72, 84, 93, and 96, Koreis discloses a primary unit [Figs. 1, 2 and 3, inductive coil 12 of charging unit 14- col. 2 lines 49-51] for use in a power transfer system [contactless power supply 10] that has a portable electrical or electronic device [computing device 18], the device being separable from the primary unit and adapted to receive power from the primary unit by inductive coupling when the device is placed on or in proximity to the primary unit [col. 2 lines 47-59], the primary unit comprising: a power transfer surface [the surface of charging unit 14]; and an inductive power supply [col. 2 lines 62-65 and col. 3 lines 1-8] which supplies power inductively; the primary unit being arranged such that the device can be placed in any position within an uninterrupted two-dimensional area of the power transfer surface to receive power inductively from the inductive power supply [Fig. 3, the computing device 18 can be placed in any orientation along the surface of the seat back tray]. Koreis does not disclose the use of attachment means, such as Velcro, to hold the computing device to the surface of the inductive charger.

Martin discloses the use of an attachment means, such as Velcro [Fig. 3, Velcro 28], to attach rechargeable batteries [rechargeable batteries 34] to a surface of a device to be charged inductively [Figs. 3 and 4, col. 5 lines 9-13]. The use of Velcro provides "at least one attaching element which is independent of the inductive power supply and which temporarily releasably attaches the device to the primary unit in any said position

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within said area such that the device is held on or in proximity to the power transfer surface, said attaching element(s) providing a non-gravitational force, acting to resist movement of the device away from the power transfer surface in a direction substantially orthogonal to that surface, when the device is attached to the primary unit in any said position within said area.”

Koreis and Martin are analogous inductive chargers for battery-powered devices with rechargeable batteries.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add a piece of Velcro to any flat power transfer surface to restrain and charge the rechargeable battery/device to be charged, as taught by Koreis, for the benefit of restraining the device and preventing any possible shifting/falling of the device due to movement. This is particularly advantageous to situations such as flat surface chargers mounted in *moving vehicles*, such as Koreis’ aircraft-mounted induction charger [col. 1 lines 63-67], in which a sudden pitch or roll of the aircraft can send the device hurtling off the charging surface of the seat back tray [see Koreis Fig. 3, seat back tray of aircraft seat].

With respect to dependent claims 23, 27-29, and 73-81, the combination of Velcro [Martin] with the power transfer surface of the inductive charger [Koreis] satisfies:

“at least one said attaching element is arranged on the power transfer surface”- this is the placed location of the Velcro, to serve as attaching means for the device to be charged.

"said at least one attaching element comprises one or more of the following: hook-and-eye fasteners, suckers, reusable self-adhesive glue, a high stiction/friction surface, a permanent magnet or array of permanent magnets, an electromagnet or array of electromagnets, and electrostatically-charged terminals"- Velcro is a hook-and-eye type fastener.

"at least one attaching element comprises a system comprising a plurality of elongate projecting elements"- the hook projections of Velcro.

"at least one said attaching element has one or more aesthetic or visual qualities to indicate to a user that the primary unit is available to supply power inductively"- the visual presence of Velcro on a flat charger surface is an indication that it is available to charge an appropriate device.

"said qualities include one or more of: a colour, texture, pattern, logo design, and a material"- the visual look and texture of Velcro is distinctive.

"at least one of said qualities changes according to an operating state of the primary unit and/or the device"- the visual look and texture of the Velcro will be blocked when a device is placed on the surface for charging. It will become visible again after the device is finished charging and removed.

" there are two or more classes [PDA's and laptops] of portable electrical or electronic device, and at least one said attaching element has one or more aesthetic or visual qualities to inform a user that the primary unit, or a certain part thereof, is appropriate for supplying power inductively to a particular said class of device"- the presence of Velcro on any of the classes of devices [col. 2 lines 13-19] can be used to

indicate the suitability of the device to be charged by the inductive charger with corresponding Velcro on its power transfer surface.

With respect to claim 82 [New], Koreis discloses that the power transfer surface is flat [Fig. 2, seat back tray 20].

With respect to claim 83 [New], Koreis discloses that the power transfer surface extends vertically when the primary unit is in use [in an extreme situation, such as during an emergency turn maneuver to avoid a mid-air collision, the aircraft, and thus the power transfer surface, can extend vertically from the ground. In a more mundane situation, using Velcro on the front of an automobile dashboard to attach hand-held devices is well known in the art. Using Velcro to attach a hand-held device to be charged to the vertically mounted surface of an inductive charger is well within the ordinary level of skill in the art].

With respect to dependent claims 35-38, 40, and 85-92, the combination of Velcro [Martin] with the power transfer surface of the inductive charger [Koreis] satisfies:

"at least one said attaching element is arranged on a surface of the device, which surface is on or in proximity to the power transfer surface when the device is placed to receive power inductively from the inductive power supply"- this is the placed location of the Velcro, to serve as attaching means for the device to be charged.

"at least one attaching element comprise a first attaching element arranged on the device and a second attaching element arranged on the power transfer surface, the first element corresponding to the second element such that the device is attachable to the power transfer surface, but the device is not attachable to another such device, and

the power transfer surface is not attachable to another such power transfer surface"-
Velcro will only mate with its corresponding other side. One side is installed on the
power transfer surface, the other side is attached on the device to be charged.
Therefore devices cannot be attached to each other, and power transfer surfaces
cannot be attached to each other.

"at least one said attaching element comprises a plurality of projections on one of
the device and the power transfer surface, and a plurality of corresponding holes on the
other"- one surface of the Velcro has projections, the corresponding surface has loops
with holes for engagement.

"a plurality of such portable electrical or electronic devices, at least one of which
is of a different type from another of the devices"- PDA's and laptop's- col. 2 lines 13-19.

"a plurality of such portable electrical or electronic devices, wherein the primary
unit is adapted to supply power simultaneously to at least two devices"- PDA's and
laptop's- col. 2 lines 13-19.

"at least two primary units and at least two portable devices [multiple seatbacks
with chargers are shown- Fig. 3, multiple devices are mentioned- col. 2 lines 13-19],
wherein a first primary unit and a first portable device have an attaching element of a
first type, and the second primary unit and the second portable device have an
attaching element of a second type, such that a primary unit with an attaching element
of one type cannot be attached to a portable device having attaching element of the
other type" - Velcro will only mate with its corresponding other side. One side is installed
on one power transfer surface of one charger, and the other side is attached on the

device to be charged. Therefore devices cannot be attached to each other, and power transfer surfaces of chargers cannot be attached to each other.

With respect to claim 91 [New], Koreis discloses that the device is below the power transfer surface when held on or in proximity thereto in use of the system [If the aircraft flips over during an accident, the power transfer surface of the charger will be above the device, which will be held in place by the attached Velcro. In a more mundane application, mounting the power transfer surface of the charger under a desk and using Velcro to attach charging devices to be charged is well within the level of ordinary skill in the art, and is advantageous to free up valuable desktop space].

With respect to claim 92 [New] Koreis discloses that the primary unit is carried in or by a movable conveyance [col. 1 lines 63-67].

With respect to claim 94 [New] Koreis discloses that at least one said attaching element has one or more aesthetic or visual qualities to indicate to a user that the device is capable of receiving power inductively [the visual presence of Velcro on a device is an indication that it is capable of being charged by an induction charger with the corresponding Velcro attached to its power transfer surface].

With respect to claim 95 [New] Koreis discloses that there are one or more classes of portable electrical or electronic device, and at least one said attaching element has one or more aesthetic or visual qualities to inform a user that the device belongs to a particular said class of device [different sizes or sides of the Velcro can be attached to the different type of devices as desired. Either one would serve to indicate the device is of a particular type].

Response to Arguments

Applicant's arguments with respect to all claims previously submitted have been considered but are moot in view of the new ground(s) of rejection in view of Martin [U.S. 6027225] and Koreis [U.S. 6489745].

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard V. Muralidar whose telephone number is 571-272-8933. The examiner can normally be reached on 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RVM
3/20/2007



KARL EASTHOM
SUPERVISORY PATENT EXAMINER